

AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Previously presented) A personal authentication apparatus for certifying a user, comprising:

a memory storing a template face-picture of the user therein, and a face-picture of a particular person who is categorized as of a special concern;

an image pickup unit taking a face-picture of said user;

a particular person comparing unit comparing said user's face-picture taken by said image pickup unit with the face-picture of the particular person, who is categorized as of the special concern, outputting as comparison result a degree of similarity therebetween, and deciding whether said degree of similarity is higher than a predetermined value;

a personal picture acquiring unit for acquiring the template face-picture of the user from said memory; and

an authentication unit,

when said degree of similarity is higher than said predetermined value, deciding whether or not said user's face-picture taken by the image pick-up unit is identical with the template face-picture of the user by a first method, and

when said degree to similarity is lower than said predetermined value, deciding whether or not said user's face-picture taken by the image pick-up unit is identical with the template face picture of the user by a second method, the second method being different from the first method.

3. (Previously presented) The personal authentication apparatus as claimed in claim 2, wherein when said particular person comparing unit decides that said degree of similarity is higher than a predetermined value, said image pickup unit heightens resolution or gradation, and takes the user's face-picture again,

said authentication unit decides whether or not said user's face-picture having the enhanced resolution or gradation is identical with the template face-picture of the user.

4. (Previously presented) The personal authentication apparatus as claimed in claim 2, wherein when said degree of similarity is higher than said predetermined value, said authentication unit increases the number of the features that are extracted from each of said user's face-picture taken by the image pick-up unit and the template face-picture of the user.

5. (Previously presented) The personal authentication apparatus as claimed in claim 2, wherein when said degree of similarity is higher than said predetermined value, said authentication unit further acquires new features of appearance of the user, and decides whether or not said user's face-picture taken by the image pick-up unit is identical with the template face-picture of the user using said newly acquired features.

6. (Previously presented) The personal authentication apparatus as claimed in claim 2, wherein said image pickup unit takes said user's face-picture as an animated image, said personal picture acquiring unit acquires the animated image of the template face-picture of the user from said memory, when said degree of similarity is higher than said predetermined value, said authentication unit decides whether or not said user's face-picture taken by the image pick-up unit is identical with the template face-picture of the user by comparing a plurality of frames in the animated image of said user's face-picture taken by the image pick-up unit with a plurality of frames in the animated image of the template face-picture of the user.

7. (Previously presented) The personal authentication apparatus as claimed in claim 2, wherein when said degree of similarity is higher than said predetermined value, said authentication unit changes the type of the features that are extracted from each of said user's face-pictures and the template face-picture of the user.

8. (Previously presented) The personal authentication apparatus as claimed in claim 3, wherein when said degree of similarity is higher than said predetermined value, said image

pickup unit takes said user's face-picture by irradiating an invisible light to said user,
said authentication unit decides whether or not said user's face-picture taken by the image pick-up unit is identical with the template face-picture of the user using said user's face-picture taken by irradiation of the invisible light.

9. (Previously presented) The personal authentication apparatus as claimed in claim 2, wherein said personal authentication apparatus certifies that a plurality of users are the user respectively,

said particular person comparing unit compares said user's face-picture taken by said image pickup unit with face-pictures of a plurality of said particular persons stored in memory,

further comprising a log storing unit for storing information of when the certification for each of said users is performed and whether or not said degree of similarity is higher than a predetermined value, the information being associated with the user,

said authentication unit decides what standard should be used for deciding whether or not said users are the user using said information stored in said log storing unit.

10. (Previously presented) The personal authentication apparatus as claimed in claim 9, wherein each of said plurality of particular persons is the person of special concern,

when said degree of similarity is higher than said predetermined value at plural times within a predetermined time, said authentication unit decides whether or not said user's face-picture taken by the image pick-up unit is identical with the template face-picture of the user by a standard stricter than the standard used theretofore.

11. (Previously presented) The personal authentication apparatus as claimed in claim 2, further comprising a person deciding apparatus installed in a place other than that of said personal authentication apparatus, deciding whether or not said user is certified, wherein when said degree of similarity is higher than said predetermined value, said authentication unit transmits said user's face-picture taken by the image pick-up apparatus to said person deciding apparatus.

12. (Previously presented) The personal authentication apparatus as claimed in claim 2, wherein said image pickup unit includes a first image pickup unit and a second image pickup unit,

said particular person comparing unit compares said user's face-picture taken by said first image pickup unit with the face-picture of said particular person,

when said degree of similarity is not higher than said predetermined value, said authentication unit decides whether or not said user's face-picture taken by said first image pickup unit is identical with the template face-picture of the user,

when said degree of similarity is higher than said predetermined value, said authentication unit decides whether or not said user's face-picture taken by said second image pickup unit is identical with the template face-picture of the user.

13. (Previously presented) The personal authentication apparatus as claimed in claim 12, wherein said second image pickup unit generates a face-picture having more amount of information than that of the face-picture taken by said first image pickup unit.

14. (Previously presented) The personal authentication apparatus as claimed in claim 2, wherein said personal authentication apparatus is coupled to another personal authentication apparatus that is provided separately along the path through which said user passes, and wherein when said degree of similarity is decided higher than a predetermined value, said authentication unit acquires said user's face-picture from said another personal authentication apparatus, and decides whether or not said user's face-picture taken by said image pickup unit is identical with the template face-picture of the user using said user's face-picture acquired by said another personal authentication apparatus.

15. (Previously presented) The personal authentication apparatus as claimed in claim 2, wherein the personal picture acquiring unit acquires the face-picture of the user from said memory based on personal identification information of the user.

16. (Previously presented) The personal authentication apparatus as claimed in claim 15, wherein the personal identification information of the user is acquired from an IC card of the user.

17. (Previously presented) The personal authentication apparatus as claimed in claim 5, wherein said newly acquired features comprises features included in a whole body picture of said user.

18. (Previously presented) The personal authentication apparatus as claimed in claim 14, wherein said user's face-picture acquired from said another personal authentication unit comprises a face-picture taken before said user has passed through the path.

19. (Currently amended) A personal authentication apparatus for authenticating a user, comprising:

a memory storing a template face-picture of the user therein and a face-picture of a person of interest;

an image pickup unit taking a face-picture of said user;

a particular person comparing unit comparing said user's face-picture taken by said image pickup unit with [[a]]the stored face-picture of a person of interest, wherein the stored face-picture of the user is different from the stored face-picture of the person of interest, outputting as comparison result a degree of similarity therebetween, and deciding whether said degree of similarity is higher than a predetermined value;

a personal picture acquiring unit for acquiring the stored template face-picture of the user from said memory; and

an authentication unit, when said degree of similarity is higher than said predetermined value, determining whether or not said user's face-picture taken by the image pick-up unit is identical with the stored template face-picture of the user by a first method, and when said degree to similarity is lower than said predetermined value, determining whether or not said

user's face picture taken by the image pick-up unit is identical with the stored template face picture of the user by a second method, the first method being different than the second method.

20. (Currently amended) The apparatus of ~~claim 1~~, claim 2, wherein the first method is stricter than the second method.

21. (New) The apparatus claim 19, wherein the first method is stricter than the second method.